

REMARKS

Favorable reconsideration in view of the previous amendments and following remarks is respectfully requested.

Claims 1-9 are pending. By this Amendment claims 1 and 8 are amended.

The Office Action rejects claims 1, 2, and 7-9 under 35 U.S.C. §102(b) over U.S. Patent No. 4,322,665 to Landgraf, claims 3-6 under 35 U.S.C. §103(a) over Landgraf in view of JP 11-125183 to Naguchi et al. and claims 6, 8 and 19 under 35 U.S.C. §103(a) over Landgraf. These rejections are respectfully traversed.

Claim 1 recites, in combination with other claimed features, at least five notches, each formed by a single uninterrupted roughly straight line on an outer circumference edge of the stator iron core, so that a quadrangle is formed by straight lines including four notches out of the at least five notches. These claimed features encompass Applicants' exemplary embodiment as illustrated in Fig. 1 wherein notches 2 are formed on an outer circumference edge of the stator iron core 1.

The Landgraf patent discloses in Fig. 2 and as described on page 3 of the Office Action, portions A (as shown in the Office Action) are formed on the outer circumference edge of the stator iron core. The portions A each have two right angles. Portions A described on page 3 of the Office Action are not formed by a single uninterrupted straight line on an outer circumference edge of the stator iron core as in Applicants' claim 1.

By providing at least five notches, each notch formed by a single uninterrupted roughly straight line on an outer circumference edge of the stator iron core, a quadrangle is formed. Thus, it is possible to reduce an area of the electromagnetic steel sheets necessary for blanking the stator iron core. This

improves the material layout resulting in a reduction of costs for the single-phase motor.

Applicants' independent claim 8 recites, in combination with other claimed features, a slot between each of a plurality of stator teeth, a plurality of evenly spaced semicircular notches having an approximately same width as the stator teeth and each provided at an outer side of each of the plurality of stator teeth on an outer circumference of the stator iron core. Such a feature encompasses Applicants' exemplary embodiment as illustrated in Fig. 8 wherein semicircular notch 2 has approximately the same width as the stator tooth 12.

The notch referenced by the Examiner in Landgraf corresponding to A on page 3 of the Office Action is not evenly spaced. As discussed in Applicants' as-filed specification at paragraph 39 when the stator is mounted on a hermetic compressor, the notches are used as passages for a refrigerant or oil. In order to secure performance and reliability it is necessary to form the notches to have a total area more than a certain level.

The magnetic flux density of the coreback is high at the outer circumferential side of the slot, and the width of coreback is large at the outer side of the teeth. Because the width is large, the magnetic flux density does not become high. Specifically, the magnetic flux density is not saturated even if the roughly semicircular notches are provided, and it is possible to reduce or prevent the increase of electric current which flows through the windings. Namely, the increase of the magnetic flux density can be reduced or prevented and the efficiency can be enhanced. Landgraf discloses a plurality of notches provided partially on the outer circumference edge.

The dependent claims are allowable for at least the reasons discussed above as well as for the individual features they recite.

Naguchi does not overcome the deficiencies of Landgraf noted above.

Early and favorable action with respect to this application is respectfully requested.

Should the Examiner have any questions regarding this Amendment of the application in general, he is invited to contact the undersigned at the number provided below.

Respectfully submitted,

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